

RHOPALOCERA FROM KEFALONIA, ZAKYNTHOS,
SAMOS AND CHIOS ISLANDS (GREECE) AND THE
KUSADASI REGION (SW TURKEY)
IN 1983 AND 1984

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Introduction

Distributions of Lepidoptera in Greece are still imperfectly known, largely as a result of the small number of entomologists who have worked there. Significant changes in agricultural and forestry practices, as well as urban and industrial development, have taken place since the studies of naturalists such as Fountaine (1902), Rebel (1936), Straubenzees (1932) and others. For our knowledge of the present-day fauna we are indebted to Coutsis (1969, 1972: two summary papers among his many significant contributions), Bretherton (1966, among others), Dacie *et al.* (1970, 1972), Koutsaftikis (1974) and a few others. Nevertheless, many parts of the country remain lightly or uncollected, or have only been surveyed at one time of year.

The present article provides some information on Rhopalocera taken largely between early May and the end of June 1983-84 (with a few records prior to that period), in Kefalonia and Zakynthos off the Adriatic coast, and from Samos and Chios off the coast of Turkey. These are all islands of considerable size, totalling in surface area the equivalent of somewhat more than one third that of Crete, yet there is little published information of the fauna of the first two, and most data concerning Rhopalocera of the Dodecanese-northern Sporades date back 45 years or more (Betts, 1922; Turati, 1929; Straubenzees, 1932; Rebel, 1936; Hartig, 1940). In 1983 some limited collecting was carried out on the Turkish mainland adjacent to Samos; these results are also included here. Kefalonia was collected in the first half of May 1983; Zakynthos in the first half of June 1984; Samos in the second half of May 1983 and Chios in the second half of May 1984. The Turkish collecting was done in late May 1983.

In total, 49 species of butterflies were captured, of which 29 were recorded from Kefalonia (2 only there; *P. alexanor* and *G. farinosa*), 28 from Zakynthos (3 only there; *H. volgensis*, *L. duponceli* and *O. venatus*), 19 from Samos (2 only there; *C. alceae*, and *P. thrax*), 33 from Chios (5 only there; *M. cinxia*, *M. phoebe*, *P.*

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anthelea, *N. acaciae* and *E. marloyi*) and 17 from the Kusadasi – Selcuk – Efeses region (1 only there; *C. orientalis*).

The majority of species were satisfactorily identified using the standard work of Higgins and Riley (1983); some genitalia of *Hipparchia* were dissected for comparison with the figures given by Coutsis (1983) to confirm specific identities. John Coutsis dissected the Zakynthos material of this genus and kindly reported his confirmation that the specimens were *H. volgensis*. The range of variation in *Maniola jurtina* on Zakynthos exceeded that indicated by Higgins and Riley (1983) and even that figured by Thomson (1969). This material is still under study. The *Maniola* males from Samos and Chios were apparently all *telmessia* although the females from both Samos and Chios were superficially almost indistinguishable from the *jurtina* of Zakynthos. This latter material also requires detailed examination. Apart from the new record for *H. volgensis*, the most interesting capture was a single male *Pelopidas thrax* (Hübner) in a dry gully between Samos town and Vathi. The specimen was a male and identifiable by the sharp white androconial streak on each forewing. Larsen (1974) believed that its limit of range on the mainland was Syria while Bretherton (1974) reported a specimen from Cyprus.

Notable absences in early May on Kefalonia were *Anthocharis cardamines* and *Pontia daplidice*; however the weather was cool and windy after a hotter spell in April and the spring flights may have finished. Butterflies were still scarce on Mt Enos above 3,000 ft, and similar scarcity was evident during collecting on the Vrachionas spine in Zakynthos, where it was again very windy and cool. At lower altitudes on Kefalonia large patches of "Analatos" *Centranthus ruber* (L.) were covered in Papilionidae and Pieridae on still days. *Lampides boeticus* on Chios was closely associated with 'Sparto' *Spartum junceum*. On the same island most Nymphalidae were taken on fragrant *Lantana camara* and flowering bramble.

The transliteration of place names from Demotic Greek to English is always a vexing problem because standard spellings are still not universally used. In this contribution localities are spelled for convenience as in the Toubis series of maps of the Grecian islands, published in Athens and widely available to the visitor. Turkish spelling is used throughout for the localities on the mainland; these are included in Fig. 1. 'Ag.' is used as a standard abbreviation both for Agiou and Agia in this article. The authors do not follow the generic name change for *Pieris rapae* given in Higgins and Riley (1983).

Results

Papilio machaon L. GREECE, Kefalonia: Castle Ag. Giorgiou; Kourouklata, Chios: Kardamila.

- Papilio alexanor* Esp. GREECE, *Kefalonia*: Ag. Giorgiou, Ag. Irini.
Iphiclides podalirius L. GREECE, *Kefalonia*: Lassi, Argostoli, Kourouklata, Ag. Irini, Lixouri, Assos, Fiskardo, Sami, Frangata, Poros. *Zakynthos*: Planos, Keri, Romiri, Agalas, Vassilikos. *Samos*: Vathi, Kokkari, Ireon, Pithagorio, Mitilinoi. *Chios*: Kardamila, Marmaron, Chios, Pyrgi, Mesta. TURKEY: Kusadasi, Efeses.
- Aporia crataegi* L. GREECE, *Kefalonia*: Kourouklata, Ag. Irini. *Chios*: Nea Moni. TURKEY: Efeses.
- Pieris brassicae* L. GREECE, *Kefalonia*: Ag. Irini. *Zakynthos*: Planos, Agalas, Keri, Vassilikos. *Samos*: Vathi. *Chios*: Kardamila, Marmaron, Nea Moni. TURKEY: Efeses.
- Pieris rapae* L. Ubiquitous- all localities.
- Euchloe simplonia* Frey. GREECE, *Kefalonia*: Ag. Giorgiou, Kourouklata, Assos. *Zakynthos*: Planos, Ag. Nikolaos, Agalas. *Samos*: Vathi, Kokkari. *Chios*: Kardamila, Nea Moni. TURKEY: Efeses.
- Colias crocea* Geoff. GREECE, *Kefalonia*: Ag. Giorgiou, Ag. Irini, Kourouklata, Assos, Fiskardo. *Zakynthos*: Planos, Vassilokos, Keri, Romiri, Agalas, Ag. Nikolaos. *Samos*: Samos, Vathi, Kokkari, Ireon. *Chios*: Kardamila, Marmaron, Mesta, Pyrgi, Nea Moni. TURKEY: Kusadasi, Efeses.
- Gonepteryx rhamni* L. GREECE, *Kefalonia*: Assos, Kourouklata, Mt. Enos. *Zakynthos*: Planos, Agalas, Ag. Leon.
- Gonepteryx cleopatra* L. GREECE, *Kefalonia*: Kourouklata, Assos, Ag. Irini, Sami. *Zakynthos*: Planos, Agalas, Ag. Nikolaos, Keri, Vassilikos, Alikes, Romiri. *Chios*: Kardamila, Nea Moni. TURKEY: Efeses.
- Gonepteryx farinosa* Zell. GREECE, *Kefalonia*: Frangata.
- Leptidea sinapis* L. GREECE, *Kefalonia*: Kourouklata, Frangata, Assos, Mt. Enos, Ag. Irini. *Zakynthos*: Agalas, Vassilikos, Keri, Romiri.
- Leptidea duponcheli* Staud. GREECE, *Zakynthos*: Planos, Agalas.
- Limenitis reducta* Staud. GREECE, *Kefalonia*: Assos, Sami. *Zakynthos*: Keri, Vassilikos. Agalas. *Samos*: Vathi. *Chios*: Kardamila, Nea Moni.
- Vanessa atalanta* L. GREECE, *Kefalonia*: Ag. Giorgiou, Kourouklata, Frangata, Ag. Irini. *Zakynthos*: Planos, Agalas, Keri, Ag. Nikolaos, Vassilikos, Alikes. *Chios*: Nea Moni.
- Cynthia cardui* (L.). GREECE, *Kefalonia*: Kourouklata, Frangata, Mt. Enos (5000'), Ag. Irini, Sami. *Zakynthos*: Planos, Agalas, Ag. Nikolaos. *Chios*: Kardamila, Marmaron, Nea Moni. TURKEY: Efeses.
- Polygonia egea* Cram. GREECE, *Kefalonia*: Fiskardo. *Zakynthos*: Planos, Ag. Nikolaos. *Samos*: Samos, Vathi, Kokkari. *Chios*: Kardamila, Marmaron, Nea Moni.

- Melitaea cinxia* L. GREECE, *Chios*: Kardamila, Nea Moni.
- Melitaea phoebe* Schiff. GREECE, *Chios*: Kardamila, Marmaron, Nea Moni.
- Melitaea didyma* Esp. GREECE, *Chios*: Kardamila, Marmaron, Nea Moni. *Samos*: Vathi. TURKEY: Efeses.
- Melitaea trivialis* Schiff. GREECE, *Chios*: Kardamila, Marmaron, Nea Moni. TURKEY: Efeses.
- Hipparchia aristaeus senthes* Fruh. GREECE, *Chios*: Kardamila.
- Hipparchia volgensis* Mazochin-Porshnjakov. GREECE, *Zakynthos*: Agalas, Keri, Ag. Nikolaos, Romiri, Vrachionas Mts.
- Hipparchia syriaca* Staud. GREECE, *Kefalonia*: Mt. Enos (4000'), *Samos*: Vathi.
- Pseudochazara anthelea* Hübn. GREECE, *Chios*: Nea Moni.
- Maniola jurtina* L. GREECE, *Kefalonia*: Lassi, Katavathres, Minia, Assos, Fiscardo, Sami, Poros, Ag. Irini, Mt Enos, Frangata. *Zakynthos*: Planos, Vassilikos, Laganas, Keri, Agalas, Ag. Nikolaos, Ag. Leon, Volimes, Alikes, Vrachionas Mts, Machairdo.
- Maniola telmessia* Zell. GREECE, *Samos*: Samos, Vathi, Kokkari, Pithagorio, Mitilinioi, Pirgos, Karlovasi, Ireon. *Chios*: Kardamila, Marmaron, Chios, Nagos, Langada, Nea Moni, Pyrgi, Mesta. TURKEY: Kusadasi, Efeses.
- Coenonympha pamphilus* L. GREECE, *Kefalonia*: Minia, Romiri, Frangata, Ag. Irini. *Zakynthos*: Planos. TURKEY: Efeses.
- Lasiommata megera* L. GREECE, *Kefalonia*: Frangata, Ag. Giorgiou, Assos. *Zakynthos*: Planos, Agalas, Vassilikos. *Samos*: Vathi. *Chios*: Kardamila, Marmaron, Nea Moni. TURKEY: Efeses.
- Lasiommata maera* L. GREECE, *Kefalonia*: Ag. Giorigou. *Samos*: Vathi. *Chios*: Marmaron.
- Kirinia roxelana* Cram. GREECE, *Samos*: Vathi. *Chios*: Kardamila, Marmaron. TURKEY: Efeses.
- Nordmannia acaciae* (Fab.) GREECE, *Chios*: Nea Moni.
- Strymonidia spini* Schiff. GREECE, *Zakynthos*: Keri. *Samos*: Vathi.
- Callophrys rubi* L. GREECE, *Kefalonia*: Frangata, Assos. *Zakynthos*: Vassilikos. *Samos*: Vathi. *Chios*: Nea Moni.
- Lycena phlaeas* L. GREECE, *Kefalonia*: Frangata, Assos. *Zakynthos*: Planos, Vassilikos. *Samos*: Vathi. *Chios*: Kardamila. TURKEY: Efeses.
- Lampides boeticus* L. GREECE, *Zakynthos*: Akrotiri, Vassilikos. *Chios*: Marmaron.
- Celastrina argiolus* L. GREECE, *Zakynthos*: Planos, Vassilikos. *Chios*: Kardamila.
- Glaucopsyche alexis* Poda. GREECE, *Kefalonia*: Mt Enos (3500'), Assos, Frangata. *Zakynthos*: Agalas.
- Pseudophilotes vicrama schiffermuelleri* (Hemming, 1929). GREECE, *Kefalonia*: Frangata, Mt. Enos (4000'). *Zakynthos*: Skopos, Vrachionas Mts. *Chios*: Kardamila.

- Aricia agestis* Schiff. GREECE, *Kefalonia*: Ag. Irini, Mt. Enos (4500'). *Zakynthos*: Planos. *Chios*: Kardamila.
- Polyommatus icarus* Rott. GREECE, *Kefalonia*: Assos, Mt. Enos (4000'), Ag. Giorgiou. *Zakynthos*: Vassilikos. *Chios*: Kardamila. TURKEY: Efeses.
- Spialia orbifer* Hoff. GREECE, *Kefalonia*: Frangata, Assos, Mt. Enos (4500-5000'). *Zakynthos*: Agalas, Ag. Leon. *Chios*: Nea Moni. TURKEY: Efeses.
- Carcharodus orientalis* Rev. TURKEY: Efeses.
- Carcharodus alceae* Esp. GREECE, *Samos*: Vathi.
- Erynnis marloyi* Bois. GREECE, *Chios*: Kardamila.
- Thymelicus acteon* Rott. GREECE, *Zakynthos*: Planos.
- Thymelicus sylvestris* Poda. GREECE, *Kefalonia*: Assos. *Chios*: Kardamila.
- Ochlodes venatus* Tur. GREECE, *Zakynthos*: Planos.
- Pelopidas thrax* Hübn. GREECE, *Samos*: Vathi.

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Figure 1. Localities indicated in text. GREECE: *Kefalonia*; Ag. Giorgiou, 2. Ag. Irini, 3. Argostoli, 4. Assos, 5. Fiskardo, 6. Frangata, 7. Katavothres, 8. Kourouklata, 9. Lassi, 10. Lixouri, 11. Minia, 12. Mt. Enos, 13. Poros, 14. Sami. *Zakynthos*; 15. Agalas, 16. Ag. Leon, 17. Ag. Nikolaos, 18. Akrotiri, 19. Alikes, 20. Keri, 21. Laganas, 22. Machairdo, 23. Planos, 24. Romiri, 25. Skopos, 26. Vassilikos, 27. Volimes, 28. Vrachionas Mts. *Chios*; 29. Kardamila, 30. Langada, 31. Marmaron, 32. Mesta, 33. Nagos, 34. Nea Moni, 35. Pyrgi. *Samos*; 36. Ireon, 37. Karlovasi, 38. Kokkari, 39. Mitilinoi, 40. Pirgos, 41. Vathi. TURKEY: 42. Efeses, 43. Kusadasi.

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A BELATED RECORD OF *BISELACHISTA TRAPEZIELLA* STANTON (LEP.: ELACHISTIDAE) FOR SCOTLAND. — Further to Dr. K. P. Bland's interesting note on this species (cf. *Entomologist's Rec. J. Var.* **98**: 27), I wish to record that in April 1973, I collected mines and larvae of *B. trapeziella* in Argyllshire in the town of Oban and nearby on Pulpit Hill, all in *Luzula sylvatica*, but unfortunately failed to breed any. However, I kept the mines and recently on submitting them to Dr. R. Knill-Jones, who knows the species well, he kindly confirmed the determination. — J. M. CHALMERS-HUNT.

CELAENA HAWORTHII CURT. (HAWORTH'S MINOR) AND *EUPITHECIA TENUIATA* HUBN. (SLENDER PUG) ON JERSEY 1984 — Single specimens of these two species were caught in the Rothamsted Insect Survey light trap on Jersey (Site No. 146) on 4-ix-84 and 20-vii-84 resp. and were determined by examination of the genitalia. So far as I am aware *C. haworthii* and *E. tenuiata* have not previously been recorded from the Channel Islands.

Thanks are extended to Mrs. R. Collier and Mr. G. Thomas for operating the Jersey trap and to Mr. R. Long of the Societe Jersiaise for his comments on these two species. ADRIAN M. RILEY, Entomology Department, Rothamsted Experimental Station, Harpenden, Herts.